

Amendments to the Drawings:

Originally filed Figure 6 is now Figures 6A and 6B. No new matter has been added.

Reference character 215 has been deleted from Figure 5. Reference character 155, Vref, has been added to the specification (paragraph beginning on page 15, line 26) and the Parts List. No new matter has been added.

A copy of the formal drawings are submitted herewith with a copy of the Letter to the Official Draftsperson which incorporates the changes required by the Examiner. Approval by the Examiner is respectfully requested.

REMARKS

Claim 2 has been cancelled. The claims remaining in the application are 1 and 3-13.

The change to the wording of claim 1 adds no new matter and support for the amendment to claim 1 may be found on page 16 of the specification.

Specification

The Abstract of the Disclosure has been amended as required by the Office Action. Also, the specification has been amended to change Figure 6 to Figures 6a and 6b. No new matter has been added.

Claim Objections

Claim 2 has been cancelled and claims 3-9 have been amended to overcome the claim objections outlined in the Office Action.

Rejection Under 35 U.S.C. § 103

The Office Action has rejected claims 1-3, 5-8, and 13 under 35 U.S.C. 103(a) as being unpatentable over Bogart (U.S. 6,452,696) in view of Ozaki (U.S. 6,819,346) and further in view of Haas (U.S. 2004/0012824). This rejection is respectfully traversed.

The Office Action has rejected claim 9 under 35 U.S.C. 103(a) as being unpatentable over Bogart (U.S. 6,452,696) in view of Ozaki (U.S. 6,819,346) and further in view of Haas (U.S. 2004/0012824), as applied to claim 1 above, and further in view of Boqart (U.S. 6,917,447). This rejection is respectfully traversed.

The Office Action has rejected claim 10 under 35 U.S.C. 103(a) as being unpatentable over Bogart (U.S. 6,452,696) in view of Ozaki (U.S. 6,819,346) and further in view of Haas (U.S. 2004/0012824). This rejection is respectfully traversed.

The Office Action has rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Bogart (U.S. 6,452,696) in view of Ozaki (U.S. 6,819,346) and further in view of Haas (U.S. 2004/0012824). This rejection is respectfully traversed.

The Office Action has rejected claim 12 under 35 U.S.C. 103(a) as being unpatentable over Bogart (U.S. 6,452,696) in view of Ozaki (U.S. 6,819,346) and further in view of Hirahata (U.S. 5,311,216) and Haas (U.S. 2004/0012824). This rejection is respectfully traversed.

The Bogart reference cited by the Office Action is not completely relevant to the claims of the present invention. Bogart, for example, teaches reciprocity correction not real-time correction. This is shown best at column 2, lines 29-39 of the Bogart reference. This shows that the apparatus is used to produce a test pattern, which is then scanned for determining the relative exposure authenticity of each light source. Reciprocity correction, as in Bogart, is standard in the industry and has to do with the non-linearity of the photosensitive media with respect to exposure time. The Bogart reference does not deal with intensity control related to non-linear velocity of the carriage shuttle mechanism.

The Ozaki reference provides a method for bearing the output of a laser at the beginning of movement of a shuttle mechanism printing to a media on a rotating drum, and at the deceleration period of the shuttle as it reaches the end of travel. The Ozaki reference assumes constant rotational speed, see Figure 4A, after the initial acceleration and deceleration. This is different from the present invention, which is designed to detect instantaneous variations in what is assumed to be a constant speed of movement of the shuttle and feed that back into the intensity control system to compensate for variations in speed of the shuttle.

Ozaki describes predetermination of corrective quantities by printing reference data, referred to as "square grid chart" onto recording sheet and measuring deviations using a highly accurate measuring unit. Column 6, lines 50-67. The corrective quantities are applied to the original square grid chart and the predetermining process is repeated until satisfactory results have been achieved.

Further, Ozaki describes storing these corrective quantities or corrective data in a storage area specified as addresses in a memory storage ADc through ADd for the accelerating period and addresses ADe through ADf for the decelerating period. Column 11, lines 56-66 and Figure 5. In addition, the exposing laser output data Pw is described as being stored in an accelerating period laser output storage area 53d of addresses ADg through ADh. Likewise, the decelerating period laser output storage has another storage area. Column 17, lines 33-46. Finally, column 18, lines 7-15 confirms the digital voltage data

corresponding to laser output corrective data Pw has been pre-stored in the corrective memory.

This is different from the present invention which contains no memory element with predetermined corrective data. The present invention, as defined in the amended claims, detects instantaneous shuttle velocity and derives instantaneous corrections which are feed back into the exposure intensity control system providing continuous accurate exposure during random velocity perturbations that can't be predetermined.

Thus, it seen that both Bogart and Ozaki are each different from the present invention, and a combination of the two references will still fail to provide intensity compensation control due to random variations in the instantaneous velocity of the shuttle. It is therefore requested that the rejection based on these references be withdrawn.

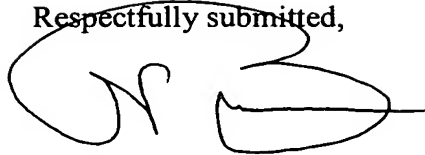
CONCLUSION

Dependent claims not specifically addressed add additional limitations to the independent claims, which have been distinguished from the prior art and are therefore also patentable.

In conclusion, none of the prior art cited by the Office Action discloses the limitations of the claims of the present invention, either individually or in combination. Therefore, it is believed that the claims are allowable.

If the Examiner is of the opinion that additional modifications to the claims are necessary to place the application in condition for allowance, he is invited to contact Applicant's attorney at the number listed below for a telephone interview and Examiner's amendment.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

Enclosures: Replacement Figure 5
Marked Up Sheets Showing Changes Made
Copy of Letter to Draftsperson
Copy of Formal Drawings

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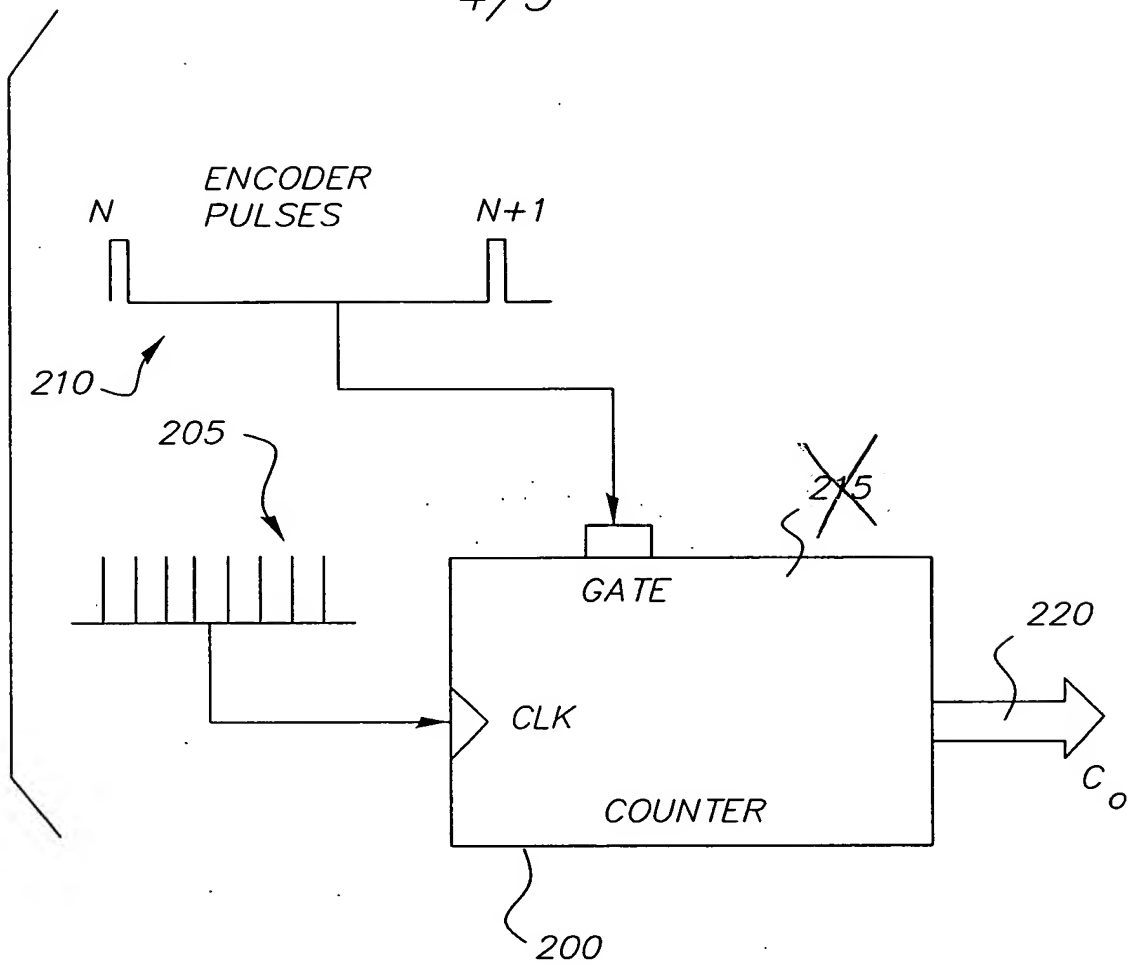


FIG. 5